# ENGINEERING AND RELATED SERVICES AUGUST 17, 2012

CONTRACT NO. 4400003187 RETAINER CONTRACT FOR ULTRASONIC TESTING OF PIN AND HANGER ASSEMBLIES STATEWIDE

Under Authority granted by Title 48 of Louisiana Revised Statutes, the Louisiana Department of Transportation and Development (DOTD) hereby issues a Request for Qualification Statements (RFQ) on DOTD Form 24-102 (24-102), "Professional Engineering and Related Services", revised November 2011, from Consulting Firms (Consultant) to provide engineering and related services. All requirements of Louisiana Professional Engineering and Land Surveying (LAPELS) Board must be met at the time of submittal. One Prime-Consultant/Sub-Consultant(s) (Consultant/Team) will be selected for this Contract.

# **Project Manager – Ms. Haylye Brown**

All inquiries concerning this advertisement should be sent in writing to Alan.Dale@LA.gov.

#### PROJECT DESCRIPTION

The selected Consultant will perform engineering and related services for statewide projects covered by a Retainer Contract under separate Task Orders. The Consultant will be required to execute a Task Order which will specify the scope of services, contract time, and compensation. Each Task Order will become a part of the Retainer Contract.

#### SCOPE OF SERVICES

The selected Consultant will be required to provide some or all of the following services for each Task Order (TO):

This project is to provide DOTD with a condition assessment of the pinned connections for approximately fifty (50) bridges through the use of ultrasonic inspection procedures as described below and defined by FHWA publication FHWA-HRT-04-042 "Guidelines for Ultrasonic Inspection of Hanger Pins".

# **INSPECTION REQUIREMENTS**

All pinned connections for the selected bridges shall be inspected using ultrasonic methods. Prior to inspection, each pin surface that will be tested shall be cleaned by removing all paint, dirt, and loose scale. Any surface irregularities that would cause unequal couplant thickness must also be removed. Access to some pin ends may require temporary support systems before the cover or cap can be removed. The configuration of

these temporary support systems are the responsibility of the Consultant and the proposed method must be submitted to DOTD for review prior to commencing work on those pins. The Ultrasonic inspection shall be conducted using both straight and angle beam transducers in a pattern that is capable of detecting any and all defects\flaws at critical locations (i.e. planes of high shear). Defects will be reported giving both size and location relative to the testing surface. Distinction between a crack and wear grooves should also be made. Great care shall be taken to determine whether a reflector is an actual flaw or if it is due to "Acoustic Coupling".

Photographs will be required in a hard copy format and in an acceptable digital format of 4 megapixel resolution or greater. Digital Photographs are acceptable (in lieu of 35mm), but shall be of 4 megapixel resolution or greater.

# **DOCUMENTATION**

It is recommended that the guidelines for reporting found in US DOT Publication No. FHWA-HRT-04-042 is followed for complete documentation of the inspection. The inspection report must include the following documentation for each pin that is inspected.

- Location of Pin in relation to the bridge and previous inspection reports.
- Physical Measurements of the pin/hanger connections so that potential shear planes can be approximated.
- Photographs and visual assessment of the physical condition of the connection components. Visual Assessment of the physical condition of the connection components.
- Ultrasonic Testing Data summarized and presented in a pin-by-pin format for each bridge. The data for each report must include the following:
  - Basic information (Structure Number, Route, Crossing Description, Inspection Date(s), etc.)
  - Geometric information (Physical measurements of connection, calculated shear plane locations, engineering assessment of ultrasonic test results, Visual Condition Assessment, etc.)
  - Ultrasonic Test Results (location of a specific reflector\flaw, ultrasonic scan angle, magnitude of reflected signal, magnitude of original signal, reference indication level (from comparator block), location of transducer on the pin face, distance from pin center to transducer center, etc.)

### **DELIVERABLES**

The Consultant shall submit three (3) printed and bound inspection reports for each bridge describing the inspection results and detailing the information required above in Documentation. The Consultant shall also submit two (2) electronic copies of the inspection reports in Portable Document Format (PDF). The printed inspection report for each bridge shall be completed, signed, and sealed by the Consultant and delivered to DOTD within sixty (60) days of the completion of field work on the structure.

All photographs and any related material taken in the course of inspection shall become the property of the DOTD. All material is to be assembled, organized by structure number and delivered to the DOTD at the completion of the project or at the direction of the project manager. All photos taken in the course of inspection (including negatives) shall become the property of DOTD and are to be assembled, organized by structure number and delivered to DOTD at the completion of the project or at the direction by the project manager.

## ITEMS PROVIDED BY DOTD

The DOTD will provide access to and copies of any and all Plans available and access to Bridge Inspection Reports for use by the Contractor in preparing and performing the inspections. The DOTD District Office will provide traffic control for daytime operations. DOTD will also provide a list of structures requiring an inspection along with their location, construction project number (for plan discovery) and any lane closure restrictions.

# ITEMS PROVIDED BY THE CONSULTANT

The Consultant will provide all equipment and expertise necessary to properly and accurately conduct the ultrasonic testing of the pins and proper reporting thereof. The Consultant will also provide own access to each pin to be inspected. It is earnestly suggested that the selected method of access for each bridge consider methods to limit or eliminate the need for full lane closures. The Consultant shall coordination with the project manager for bridge site so that expected traffic disruption can be kept to a minimum.

### TRAFFIC CONTROL

Traffic control operations and procedures when necessary will be the responsibility of the Consultant/Team. These operations and procedures will be coordinated through the Department's District Headquarters.

Statewide bridges traffic control: Traffic will be maintained at all times. Lane closure shall be allowed where necessary to block traffic with the restriction that no more than one lane of traffic in each traffic direction can be closed at any one time. Lane Closures will be restricted between the hours of 9:00 a.m. and 3:00 p.m. All lane closures must be approved by the District Traffic Operations Engineer. A truck with a mounted attenuator shall be used to protect personnel and equipment in the closed lane. The Consultant shall provide two electronic messages, one at each end of the bridge, to alert motorist of the ongoing inspection. Temporary Traffic Control shall be as per Standard Details. The Consultant shall be required to use police as it is specified in the Department's **Policy for Use of Police Officers in Construction/Maintenance Work Zones** as well as special provisions for **Public Convenience and Safety** guidelines. , with DOTD Work Zone Law Enforcement training, to close the lane for the moving lane closure.

The Consultant shall inform the DOTD sixty (60) calendar days in advance of the beginning of the inspection so that the DOTD will notify the State's Transportation Commission about this work.

#### REFERENCES

All services and documents will meet the standard requirements as to format and content of the DOTD; and will be prepared in accordance with the latest applicable editions, supplements and revisions of the following:

- 1. AASHTO Standards, ASTM Standards or DOTD Test Procedures
- 2. DOTD Location and Survey Manual
- 3. DOTD Roadway Design Procedures and Details
- 4. DOTD Hydraulics Manual
- 5. DOTD Standard Specifications for Roads and Bridges
- 6. Manual of Uniform Traffic Control Devices
- 7. DOTD Traffic Signal Design Manual
- 8. National Environmental Policy Act (NEPA)
- 9. National Electric Safety Code
- 10. National Electric Code (NFPA 70)
- 11. DOTD Environmental Impact Procedures (Vols. I-III)
- 12. Policy on Geometric Design of Highways and Streets
- 13. Construction Contract Administration Manual
- 14. Materials Sampling Manual
- 15. DOTD Bridge Design Manual
- 16. Consultant Contract Services Manual
- 17. Geotechnical Engineering Services Document
- 18. Bridge Inspectors Reference Manual
- 19. AASHTO Manual for Bridge Evaluation, 2011
- 20. FHWA Bridge Inspector's Reference Manual FHWA-NHI-03-001
- 21. FHWA Manual on Uniform Traffic Control Devices (MUTCD)
- 22. FHWA Recording and Coding Guide for Structure Inventory of the Nation's Bridges, FHWA-PD-96-001
- 23. US DOT Publication No. FHWA-HRT-04-042
- 24. LA DOTD PONTIS Bridge Inspection Manual 2009
- 24.25. AASHTO LFRD Bridge Design Specifications

### **COMPENSATION**

Compensation to the Consultant for services rendered in connection with each TO shall be based on negotiated work-hours using DOTD established billable rates for the actual work performed on the Task Order.

The amount payable under this Retainer Contract for services to be performed under the various TO's shall not exceed a maximum of \$1,500,000. Each TO shall be payable under the respective TO project number which shall be obtained by the Project Manager.

All travel related expenses will be compensated under direct expenses, and will be in accordance with Louisiana Office of State Travel regulations found at: <a href="http://www.doa.louisiana.gov/osp/travel/travelpolicy.htm">http://www.doa.louisiana.gov/osp/travel/travelpolicy.htm</a>. Vehicle rental rates will require prior approval from the DOTD Project Manager.

The Consultant may request to have the initial billable rates updated on a yearly basis. However, any adjustment to the Contract billable rates shall not be cause for an increase in the maximum compensation limitation imposed herein.

#### CONTRACT TIME AND NOTICE TO PROCEED

This Retainer Contract shall be in effect for the duration of **4 years**. The services to be performed for each Task Order (TO) will be determined prior to the execution of the TO. The Consultant will proceed with the services required in the TO upon issuance of the Notice to Proceed from the DOTD. The contract time for each TO, will be specified in the executed TO. Any TO in effect, prior to the expiration date of the Retainer Contract shall be completed.

# QUALITY CONTROL/QUALITY ASSURANCE

The DOTD requires the Consultant to develop a Quality Control/Quality Assurance program; in order to provide a mechanism by which all contracted services can be subject to a systematic and consistent review. Consultants must ensure quality and adhere to established design policies, procedures, standards, and guidelines in the preparation and review of all design products. The DOTD shall provide limited input and technical assistance to the Consultant.

# MINIMUM PERSONNEL REQUIREMENTS

The following requirements must be met at the time of submittal:

- 1. At least one Principal of the Prime-Consultant must be a Professional Engineer registered in the State of Louisiana.
- 2. At least one Principle or a responsible member of the Prime-Consultant must be a Professional Civil Engineer registered in the State of Louisiana.
- 3. The Prime-Consultant must also employ on a full time basis, a minimum of one Professional Civil Engineer registered in the State of Louisiana, with at least five years experience in structural engineering.
- 4. At least one American Society of Nondestructive Testing (ASNT) Level III certified inspector to establish techniques, procedures, methods, etc. for performing the required inspections.
- 5. At least two inspectors performing NDT work are required to have American Society of Nondestructive Testing (ASNT) Level I certification.

#### RE: Numbers 4 and 5

# **Inspector Qualifications & Certifications**

All field ultrasonic inspections shall be conducted by an individual with American Society for Nondestructive Testing (ASNT) NDT Level II certification for UT or ACCP Level II certification. The Consultant shall also have on staff an ASNT Level III certified individual, who will be responsible for establishing all techniques and procedures to be used for each inspection. Further information regarding training and certification requirements can be found at <a href="http://asnt.org">http://asnt.org</a>

Training Certifications/Certifications of Compliance must be submitted with and made part of the Consultants DOTD Form 24-102 for all Personnel Requirements listed herein.

### **EVALUATION CRITERIA**

The general criteria to be used by DOTD (when applicable) in evaluating responses for the selection of a Consultant to perform these services are:

- 1. Consultant's firm experience on similar projects, weighting factor of 3;
- 2. Consultant's personnel experience on similar projects, weighting factor of 4;
- 3. Consultant's firm size as related to the estimated project cost, weighting factor of 3; \*\*\*
- 4. Consultant's past performance on similar DOTD projects, weighting factor of 6;\*\*
- 5. Consultant's current work load, weighting factor of 5;
- 6. Location where the work will be performed, weighting factor of 4. \*

- \*\*The Bridge Inspection (BI) performance rating will be used for this project.
- \*\*\*A firm with a ratio of 5 or greater as per the Departments Firm Size Chart will receive a rating of 2. See attached link: <a href="http://webmail.dotd.louisiana.gov/ContWeb.nsf/74710f57e6617ac68625717f00447565/6c56ef8338962814862571e8004b9c2a?OpenDocument">http://webmail.dotd.louisiana.gov/ContWeb.nsf/74710f57e6617ac68625717f00447565/6c56ef8338962814862571e8004b9c2a?OpenDocument</a>

### Complexity level (moderate)

Consultants will be evaluated as indicated in Items 1-6. The evaluation will be by means of a point-based rating system. Each of the above criteria will receive a rating on a scale of 0-4. Then the rating will be multiplied by the corresponding weighting factor. The firm's ratings in each category will then be added to arrive at the Consultant's final rating.

If Sub-Consultants are used, the Prime Consultant must perform a minimum of 51% of the work for the overall project. Each member of the Consultant/Team will be evaluated on their part of the contract, proportional to the amount of their work. The individual team member ratings will then be added to arrive at the Consultant/Team rating.

#### Communication Protocol

<sup>\*</sup>Location will be based from Marksville, Louisiana.

DOTD's Project Evaluation Team will be responsible for performing the above described evaluation, and will present a short-list of the three (if three are qualified) highest rated Consultants to the Secretary of the DOTD. The Secretary will make the final selection. Below are the proposed Team members. DOTD may substitute for any reason provided the members meet the requirements of R.S. 48:291.

- 1. Alan Dale Ex officio
- 2. Haylye Brown, Project Manager
- 3. Steven Sibley
- 4. David Nash
- 5. John Kent Hardin
- 6. Dennis Keith Antee

# Rules of Contact (Title 48 Engineering and Related Services)

These rules are designed to promote a fair, unbiased, legally defensible selection process. The LA DOTD is the single source of information regarding the Contract selection. The following rules of contact will apply during the Contract selection process and will commence on the date of advertisement and cease at the contract execution by the selected firm. Contact includes face-to-face, telephone, facsimile, Electronic-mail (E-mail), or formal written communications. Any contact determined to be improper, at the sole discretion of the LA DOTD, may result in the rejection of the submittal (24-102):

- A. The Consultant shall correspond with the LA DOTD regarding this advertisement only through the LA DOTD Consultant Contracts Services Administrator;
- B. Neither the Consultant, nor any other party on behalf of the Consultant, shall contact any LA DOTD employees, including but not limited to, department heads; members of the evaluation teams; and any official who may participate in the decision to award the contract resulting from this advertisement except through the process identified above. Contact between Consultant organizations and LA DOTD employees is allowed during LA DOTD sponsored one-on-one meetings;
- C. Any communication determined to be improper, at the sole discretion of the LA DOTD, may result in the rejection of submittal, at the sole discretion of the LA DOTD;
- D. Any official information regarding the project will be disseminated from the LA DOTD'S designated representative on the LA DOTD website. Any official correspondence will be in writing;
- E. The LA DOTD will not be responsible for any verbal exchange or any other information or exchange that occurs outside the official process specified herein.

By submission of a response to this RFQ, the Consultant agrees to the communication protocol herein.

## **CONTRACT REQUIREMENTS**

The selected Consultant will be required to execute the contract within 10 days after receipt of the contract.

**INSURANCE** - During the term of this contract, the Consultant will carry professional liability insurance in the amount of \$1,000,000. This insurance will be written on a "claims-made" basis. Prior to executing the contract, the Consultant will provide a Certificate of Insurance to DOTD showing evidence of such professional liability insurance.

**AUDIT** - The selected Consultant will allow the DOTD Audit Section to perform an annual overhead audit of their books, or provide an *independent* Certified Public Accountant (CPA) audited overhead rate. This rate must be developed using Federal Acquisition Regulations (FAR) and guidelines provided by the DOTD Audit Section. In addition, the Consultant will submit semi-annual labor rate information, when requested by DOTD.

The selected Consultant will maintain, an approved Project Cost System and segregate direct from indirect cost in their General Ledger. Pre-award and post audits, as well as interim audits, may be required. For audit purposes, the selected Consultant will maintain accounting records for a minimum of five years after final contract payment.

Any Consultant currently under contract with the DOTD and who has not met all the audit requirements documented in the manual and/or notices posted on the DOTD Consultant Contract Services Website (<a href="www.dotd.louisiana.gov">www.dotd.louisiana.gov</a>), will not be considered for this project.

# SUBMITTAL REQUIREMENTS

One original (**stamped "original"**) and **five** copies of the DOTD Form 24-102 must be submitted to DOTD. All submittals must be in accordance with the requirements of this advertisement and the Consultant Contract Services Manual. Any Consultant/Team failing to submit any of the information required on the 24-102, or providing inaccurate information on the 24-102, will be considered non-responsive.

Any Sub-Consultants to be used, including Disadvantaged Business Enterprises (DBE), in performance of this Contract, must also submit a 24-102, which is completely filled out and contains all information pertinent to the work to be performed.

The Sub-Consultant's 24-102 must be firmly bound to the Consultant's 24-102. In Section 8, the Consultant's 24-102 must describe the **work elements** to be performed by the Sub-Consultant(s), and state the approximate **percentage** of each work element to be subcontracted to each Sub-Consultant.

Name(s) of the Consultant/Team listed on the 24-102, must precisely match the name(s) filed with the Louisiana Secretary of State, Corporation Division, and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors.

The DOTD Form 24-102 will be identified with **Contract No. 4400003187**, and will be submitted **prior to 3:00 p.m. CST** on **Thursday Tuesday**, **September 6**, **2012**, by hand delivery or mail, addressed to:

Department of Transportation and Development Attn.: Mr. Alan Dale, P.E. Consultant Contracts Services Administrator 1201 Capitol Access Road, **Room 405-T** Baton Rouge, LA 70802-4438 or Telephone: (225) 379-1401

# **REVISIONS TO THE RFQ**

DOTD reserves the right to revise any part of the RFQ by issuing an addendum to the RFQ at any time. Issuance of this RFQ in no way constitutes a commitment by DOTD to award a contract. DOTD reserves the right to accept or reject, in whole or part, all Qualification Statements submitted and/or cancel this announcement if it is determined to be in DOTD's best interest. All materials submitted in response to this announcement become the property of DOTD and selection or rejection of a submittal does not affect this right. DOTD also reserves the right, at its sole discretion, to waive administrative informalities contained in the RFQ.